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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 6,013,255,211 | 06/01/1993 | CHARLES H. THOMAS | 1-39648 |

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EXAMINER

NGUYEN, T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3726 | 10 |

DATE MAILED:

02/12/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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**SUPPLEMENTAL
Advisory Action**

| | |
|--------------------------------------|-------------------------------|
| Application No. 09/325,311 | Applicant(s) Shoup |
| Examiner Trinh Nguyen | Group Art Unit 3726 |

THE PERIOD FOR RESPONSE: [check only a) or b])

- a) expires 3 months from the mailing date of the final rejection.
- b) expires either three months from the mailing date of the final rejection, or on the mailing date of this Advisory Action, whichever is later. In no event, however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

- Appellant's Brief is due two months from the date of the Notice of Appeal filed on _____ (or within any period for response set forth above, whichever is later). See 37 CFR 1.191(d) and 37 CFR 1.192(a).

Applicant's response to the final rejection, filed on Aug 29, 2000 has been considered with the following effect, but is NOT deemed to place the application in condition for allowance:

The proposed amendment(s):

- will be entered upon filing of a Notice of Appeal and an Appeal Brief.
- will not be entered because:
 - they raise new issues that would require further consideration and/or search. (See note below).
 - they raise the issue of new matter. (See note below).
 - they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
 - they present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: After reconsideration, it is noted that the Amendment dated 12/1/00 will be entered upon filing of a Notice of Appeal.

- Applicant's response has overcome the following rejection(s):

- Newly proposed or amended claims _____ would be allowable if submitted in a separate, timely filed amendment cancelling the non-allowable claims.
- The affidavit, exhibit or request for reconsideration has been considered but does NOT place the application in condition for allowance because:

- The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

For purposes of Appeal, the status of the claims is as follows (see attached written explanation, if any):

Claims allowed: _____
 Claims objected to: _____
 Claims rejected: 1-17 _____

- The proposed drawing correction filed on _____ has has not been approved by the Examiner.
- Note the attached Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- Other

J. Carl Rosenthal
 Dec 3 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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20231, on July 17, 2001

DISLO & THOMAS

By Charles H. Thomas

Registration No. 25,710

Date: July 17, 2001

G.A.U. 3726

Inventor: Curtis C. Shoup

Serial No: 09/325,311

Title: METHOD OF FABRICATING
SECURITY DOOR AND
STRUCTURE THEREOF

Filed: June 3, 1999

Examiner: Trinh Nguyen

REQUEST FOR REINSTATEMENT OF THE APPEAL

BPA&I
Assistant Commissioner of Patents
Washington, DC 20231-0001

Sir:

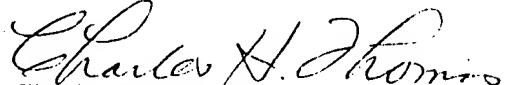
On February 9, 2001 Applicant filed Applicant's Appeal Brief. The Examiner did

not file an Answer, but instead raised a new grounds for rejection in an Official Action mailed May 23, 2001. These new grounds of rejection combine additional references with references previously cited for rejection of Applicant's claims on appeal. Applicant believes that the new references relied upon are of no greater relevance than the other references of record. Therefore, Applicant respectfully requests reinstatement of this appeal as provided by M.P.E.P. § 1208.02.

Enclosed herewith is Applicant's Supplemental Appeal Brief.

Date: July 17, 2001

Respectfully submitted


Charles H. Thomas
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20231, on July 17, 2001

By CISLO & THOMAS

) Registration No. 25,710

) Date: July 17, 2001

Inventor: Curtis C. Shoup)
Serial No: 09/325,311)
Title: METHOD OF FABRICATING) G.A.U. 3726
SECURITY DOOR AND)
STRUCTURE THEREOF)
Filed: June 3, 1999)
Examiner: Trinh Nguyen)

SUPPLEMENTAL APPEAL BRIEF

BPA&I
Assistant Commissioner of Patents
Washington, DC 20231-0001

Sir:

Applicant hereby presents in triplicate his Supplemental Appeal Brief, pursuant to
M.P.E.P. § 1208.02.

REAL PARTY IN INTEREST

The real party in interest is stated under this same heading in Applicant's Appeal Brief filed February 9, 2001, all statements of which are hereby incorporated by reference.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF THE CLAIMS

Claims 1, 2, 4 through 7, and 11 through 17 stand rejected. The Official Action of May 23, 2001 states at page 6 that Claims 3 and 8-10 are allowed, although it is believed that the Examiner considers them to be allowable, if rewritten so as not to depend upon rejected claims.

STATUS OF AMENDMENTS

It is believed that the Amendment received by the U.S. Patent and Trademark Office on December 1, 2000 has now been entered. In the Supplemental Advisory Action dated February 27, 2001, the Examiner indicated that "the Amendment dated 12/1/00 will be entered upon filing of a Notice of Appeal". However, the Notice of Appeal had already been filed on December 4, 2000.

SUMMARY OF INVENTION

The statements of the summary of the invention set forth under this same heading in Applicant's Appeal Brief filed February 9, 2001 all remain applicable and Applicant hereby incorporates by reference all statements set forth under the heading, "Summary of Invention", in Applicant's Appeal Brief.

ISSUES

1. Are Claims 2 through 6, 7, and 8 indefinite under U.S.C. § 112 for failing to particularly point out and distinctly claim the subject matter of the invention?
2. Are Claims 1, 2, 4 through 7, and 11 through 17 obvious and therefore unpatentable under 37 U.S.C. § 103(a) considering the Lee reference in view of the Bruhnke et al, Goldsmith, Stern, and/or Janotik et al references?
3. Are Claims 1, 7, and 13 obvious and therefore unpatentable under 37 U.S.C. § 103(a) considering Applicant's admitted prior art, which is set forth on pages 1 and 2 and lines 1-5 on page 3 of the Specification of the present application (AAPA) in view of Medley (U.S. Patent No. 3,892,939) and O'Brien (U.S. Patent No. 2,197,982)?
4. Are Claims 4, 5, 11, 14, and 15 obvious and therefore unpatentable under 37 U.S.C. § 103(a) considering Applicant's admitted prior art which is set forth on pages 1 and 2 and lines 1-5 on page 3 of the Specification of the present application (AAPA) in view of Medley (U.S. Patent No. 3,892,939) and O'Brien (U.S. Patent No. 2,197,982) and further in view of Stern (U.S. Patent No. 5,018,263)?
5. Are Claims 6, 12, 16, and 17 obvious and therefore unpatentable under 37 U.S.C. § 103(a) considering Applicant's admitted prior art which is set forth on pages 1 and 2 and lines 1-5 on page 3 of the Specification of the present application (AAPA) in view of Medley (U.S. Patent No. 3,892,939) and O'Brien (U.S. Patent No. 2,197,982) and further in view of Stern (U.S. Patent No. 5,018,263) and further in view of Janotik et

al (U.S. Patent No. 5,549,352)?

GROUPING OF CLAIMS

Although the Advisory Action of February 27, 2001 stated that Applicant's Amendment of December 1, 2000 would be entered upon filing a Notice of Appeal, neither that Advisory Action nor the Supplemental Advisory Action dated May 23, 2001 withdrew any grounds for rejection. Accordingly, it is Applicant's understanding that the Examiner continues to maintain that all of the original grounds for rejection remain applicable, including the rejection under 35 U.S. C. § 112.

Therefore, Applicant considers Claims 2 and 4 through 7 to constitute a first group (Group I) of claims for purposes of this appeal. The Group I claims have all been rejected under both 35 USC § 112 and 35 USC § 103.

Applicant considers Claims 3 and 8, 9 and 10 to constitute a second group of claims (Group II) for purposes of this appeal. The Group II claims were rejected under 35 USC § 112 but in the final rejection of the other claims in the Official Action of August 29, 2000 were indicated as being allowable if amended to overcome the rejection under 35 USC § 112. However, in the latest Official Action dated May 23, 2001, the Examiner indicated that these claims are allowable. Applicant takes this to mean that the Group II claims are no longer being rejected under 37 C.F.R. § 112 as being indefinite, but only as being dependent upon rejected claims.

Applicant considers Claims 1 and 11 through 17 to constitute a third group of claims (Group III) for purposes of this appeal. The Group III claims all stand rejected

under 35 USC § 103 only, as they were not rejected under 35 USC § 112.

ARGUMENT

Since no grounds of rejection have been withdrawn, all points of argument set forth in Applicant's Appeal Brief filed February 9, 2001 remain applicable, except as applied to the Group II claims 3 and 8, 9 and 10, which the Examiner indicated in her Official Action of May 23, 2001 are allowable. Applicant hereby incorporates by reference all statements of argument made under this same heading in Applicant's Appeal Brief in the entirety. In addition, Applicant believes that the following further points of argument are warranted in view of the new grounds of rejection raised by the Examiner.

Acknowledged Prior Art (AAPA) in view of the Medley and O'Brien References

As correctly stated by the Examiner, the acknowledged prior art at pages 1 and 2 and lines 1-5 of page 3 of the specification teaches that it is known to manufacture a security door with tubular upright stile members, tubular upper and lower transverse rail members, and a plurality of metal bars forming a grid across the rectangular opening defined between the stile and rail members. The security bars forming the rectilinear grillwork are secured to the stile and rail members by arc welding.

The Medley reference discloses a system in which an end bar 18 is to be welded to the projecting ends of the longitudinal members 12 of a metal grating 11 comprised of a plurality of longitudinal members 12 interconnected by cross bars 13. The end bar 18 to be welded is provided with a pair of welding beads 19 extending the length of its welding

face (col. 2, lines 56-67).

The end bar 18 is welded to the ends of the longitudinal members 12 utilizing a first electrode 21 comprised of a pair of copper blocks 22 and a second electrode 23 (Fig. 2). The electrode 23 is pressed toward the ends of the bars 12, against the surface of the metal bar 18 by a linkage 25 (Fig. 9). With current through the electrodes 21 and 23 the welding beads 19 melt, but the pressure of the linkage 25 is maintained to secure the end bar 18 to the ends of the longitudinal members 12 (col. 3, lines 3-22).

The O'Brien patent discloses a shelf or rack for refrigerators or ovens (page 1, col. 1, lines 3-5). The rack illustrated in Fig. 1 of O'Brien has side members 2 and a front frame member 4 which is of a T angle iron disposed with the central flange or arm 5 projecting inwardly (page 1, col. 1, lines 47-52). The grid or slat members 9 (Fig. 1) are formed of wire with their front ends disposed upon the inwardly projecting arm or flange 5 and with their ends in abutting relation to the inner side of the web or vertical portion of the front frame member 4. They are then welded both to the flange and to the vertical portion of the frame member as indicated at 10 in Fig. 5.

In the embodiment of Fig. 6 the frame member 13 is formed of sheet metal folded longitudinally to provide a T-section having spaced inwardly projecting flanges 14. The grid members 9 are disposed with their front ends between the flanges 14 and are welded thereto as indicated at 15. The ends of the grid members 9 are welded to the web portion of the front frame member 13 as indicated 16 (page 1, col. 2, lines 37-48). In the embodiment of Fig. 7, the front frame member 17 is formed of sheet metal having a single

inwardly projecting flange 18 to which the grid members 9 are secured (page 1, col. 2, lines 50-54). There is no disclosure in the O'Brien reference as to whether the T-shaped member and the grid members 9 are arc welded, spot welded, or welded by any other means.

In the rejection of Claims 1, 7, and 13 the Examiner takes the position that the longitudinal bar 18 of the Medley reference is "equivalent" to either the stile or rail members claimed, and that the O'Brien reference shows "tubular members" 9 which are "equivalent" to Applicant's security bars being welded to another structural member, 4, 13, 17, or 19 which is "equivalent" to stile members or the rail members as claimed by providing receiving openings and inwardly projecting flanges 5, 14, and 18 on the structural members. However, there are numerous fallacies in the Examiner's argument.

The Analysis Upon Which This Rejection Is Based Is
Contrary To That Prescribed By Law

In rejecting Claims 1, 7, and 13 the Examiner has utilized the acknowledged prior art (AAPA) as a basis, read Claims 1, 7, and 13 onto the acknowledged prior art, and when confronted with an absence of a claim element, supplied that claim element from a secondary reference with a conclusory statement that the elements selected from the secondary references are "equivalent" to those of the acknowledged prior art. Such an analytical approach in determining patentability under 35 U.S.C. § 103 is totally contrary to the entire body of patent law concerning that statute.

The fundamental standard of patentability under 35 U.S.C. Section 103 is set forth

in the decision by the United States Supreme Court in Graham et al v. John Deere Co., 148 USPQ 459 (1966). In that landmark decision the United States Supreme Court held that:

"Under Section 103, scope and content of prior art are to be determined, differences between prior art and claims are to be ascertained, and level of ordinary skill in the art resolved; against this background, obviousness of subject matter is to be determined. Such secondary considerations as commercial success, long felt but unsolved need, failure of others, etc. might be utilized too give light to the circumstances surrounding the origin of the subject matter to be patented. As indicia of obviousness or non-obviousness, these inquiries may have relevancy."

Following the analytical approach set forth by the United States Supreme Court in Graham v. Deere one must first determine the scope and content of the prior art. In the present case the field of the invention is security doors and methods of manufacturing security doors (Specification, page 1, lines 8-9). Both the Applicant and the Examiner agree that it is conventional for security doors to be formed of stile and rail members that form hollow metal rectangular frames and that a grid of metal bars is provided across the rectangular opening defined between the stile and rail members (Specification, page 2, lines 1-7). It is conventional for the metal security bars to be secured to the rectangular frame by means of arc welding (Specification, page 2, lines 17-19). The claimed method of the present invention differs from the prior art in that instead of arc welding the security

bars to the hollow stile and rail members, the security bars are attached to the frame by spot welding. None of the references relied upon for rejection disclose the step of spot welding security bars to stile and rail members of a metal security door.

Applicant certainly does not claim to have invented the technique of spot welding. Spot welding or resistance welding has been utilized for many years to attach different metal objects together. The principle of spot welding is that two metal objects, typically formed of steel, are placed in intimate contact with each other and are pressed toward each other while passing a large electrical current across the interface of contact. The electric current is supplied through electrodes which form the portions of the pressure applying mechanism that contact the metal parts to be bonded together. A very important aspect of spot welding is that the electrodes must contact the metal parts to be welded and that the requisite pressure must be applied through these electrodes. If the metal parts are of such a configuration, or intersect in such a way that pressure cannot be applied to force the parts together through the electrodes, welding will not occur.

Arc welding, on the other hand, does not require any particular application of pressure to the metal parts to be welded, nor does it involve the passage of electrical current through the parts and across the interfaces of the metal parts to be bonded. To the contrary, arc welding involves the heating of both a bonding material, i.e. a flux, and the metal parts to be welded together by a torch. The flux flows into the junction between the metal parts in a molten state and solidifies when cooled, thereby forming a bond with both of the metal parts to be joined. Because the metal parts are not typically melted together,

but rather are joined together by the melted flux material, no particular face-to-face contact is required between the metal parts. Indeed, metal parts that intersect each other at right angles, or any other angles, can be securely fastened to each other utilizing the technique of arc welding.

Because the metal bars of a security door intersect the hollow stiles and rails of the door frame, the rectilinear intersection of these metal parts to be joined readily lends itself to the technique of arc welding. However, and as pointed out by Applicant in the Specification, arc welding is both expensive and time consuming. It also requires a considerable amount of welding skill (Specification, page 2, line 16 to page 3, line 2).

In contrast, because there is no face-to-face contact between the metal bars of a security door grillwork and the surrounding tubular frame formed by the stiles and rails, and because there is no apparent means of pressing these metal members to be joined so that surfaces thereof are compressed in intimate fact-to-face contact at locations accessible by electrodes, spot welding has not heretofore been utilized to attached the metal grid of a security door to a security door frame.

The Examiner has combined secondary references with the acknowledged prior art (ΛΑΡΑ) to supply the missing step of spot welding to applicant's invention as claimed in Claims 1, 7, and 13. The secondary references are not from the field of security door fabrication. To the contrary, both the Medley and O'Brien references are from other fields entirely.

In the application of 35 U.S.C. § 103, it is permissible to look to "analogous art"

in determining whether or not an invention would have been ordinary to a person of ordinary skill in the art to which the invention relates. As held in Heidelberger Druckmaschinen AG v. Hantscho Commercial Products Inc., 30 USPQ2d 1377 (CAFC 1994):

"References which are not within field of inventor's endeavor are considered "analogous art" which may be relied upon in patentability determinations if person of ordinary skill would reasonably have consulted those references and applied their teachings in seeking solution to problem that inventor was trying to solve; whether reference is "analogous art" is question of fact, and is part of analysis of scope and content of prior art."

The Medley reference relates to a welding machine which is suitable for welding end bars to the ends of the longitudinal bars of a metal grating, the machine being used for welding gratings either of steel or aluminum (col. 1, lines 6-10). Thus, unlike the field of the present invention which involves securing bars of a metal grating to a surrounding hollow tube, the Medley reference involves securing bars of a metal grating to end bars, not hollow tubing. Applicant respectfully submits that the Medley reference is not "analogous art" since a fabricator of security doors formed of hollow tubular frames with a grid of rectangular bars in the central opening of the frame would not look to a reference for securing bars to bars, rather than tubes to bars.

However, even if the medley reference is considered to be a reference to which a security door fabricator would reasonably have consulted, there is no disclosure in that

reference that would allow one to successfully spot weld security bars to either the hollow stile or hollow rail members. Quite to the contrary, if one were to utilize the machine of Medley and position one of the stile members 14 or 16 or one of the rail members 22 or 24 in place of the end bar 18 shown in Medley, and then attempted to spot weld it to one of the security bars 26 or 28, located in the position of the longitudinal member 12 of Medley, no weld would form. With reference to Fig. 4 of the present application and Figs. 1, 2, and 3 of the Medley reference, for example, use of the machine of Medley would result in contact of the blocks 22 of the first electrode 21 of Medley in place of Applicant's opposing electrodes 54 and 56, and placement of the second electrode 23 of Medley in contact with the web 49 of the stile 14. Due to the hollow cavity within the stile 14, the resistance heating generated by the passage of electrical current between the electrodes 23 and 21 of Medley would be dissipated within the hollow enclosure of the stile 14.

Moreover, and with particular reference to Fig. 3 of the Medley patent, as pressure was increased forcing the electrode 23 against the web 49, the web 49 would be pushed inwardly toward the inwardly facing surface 51 of the stile 14. The stile 14 would thereupon be crushed and unsuitable for its intended purpose.

In rejecting Claims 1, 7, and 13 the Examiner further combines the O'Brien reference with the acknowledged prior art (AAPA) and the Medley reference. Like Medley, the O'Brien reference does not relate to the field of the present invention, namely the fabrication of security doors. To the contrary, the O'Brien reference relates to a shelf

or rack for refrigerators, ovens or the like (O'Brien, page 1, col. 1, lines 4-6). The O'Brien reference shows in Fig. 6 welding of a frame member 13 formed of sheet metal and folded longitudinally to provide a T-section having spaced inwardly projecting flanges 14 to grid members 9. The grid members 9 are disposed with their front ends between the flanges and welded thereto as indicated at 15 and the ends of the grid members are welded to the web portion of the front frame member as indicated at 16 (O'Brien, page 1, col. 2, lines 37-48).

However, if one were to combine the teachings of O'Brien to the combination of the acknowledged prior art and Medley, instead of securing the security bars to a frame formed of a pair of hollow stile members and a pair of hollow rail members, one would have to reconfigure the stile and rail members completely so that they were no longer hollow. Again with reference to Fig. 4 of the present application, instead of rolling the edges 34 and 36 together to form a single attachment flange 50 on each hollow segment member forming the frame 30 (Specification, page 11, line 9 to page 12, line 8) the edges 34 and 36 would be separated from each other to form a T-shaped structure with a slot extending around the entire inner perimeter of the inwardly facing surfaces 51 of the stiles 14 and 16 and the rails 22 and 24. The stiles 14 and 16 would thereupon not be hollow, as required by the claims, but rather channel-shaped or slotted as shown in Fig. 6 of the O'Brien reference.

As held by the Court of Appeals for the Federal Circuit in In re Oetiker, 24 USPQ2d 1443 (CAFC 1992):

“Prior art reference, in order to be relied upon as basis for rejecting applicant’s invention, must either be in field of applicant’s endeavor or, if not, be reasonably pertinent to particular problem with which inventor was concerned; combination of elements from non-analogous sources, in manner that reconstructs Applicant’s invention only with benefit of hindsight is insufficient to present *prima facie* case of obviousness.”

Furthermore, in combining the various references as the Examiner has done as a basis for rejection for Claims 1, 7, and 13, the Examiner must identify where the prior art provides a motivating suggestion for the modification. In the decision in In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (CAFC 1992), the Court held:

“Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so...In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988).” [at 1943] [Emphasis added]

The Courts have held that even if the prior art may be modified as suggested by the proponent of obviousness, the modification is not obvious unless the prior art suggests the desirability for the modification. For example, in the decision in In re Fritch, 922 F.2d 1260, 23 USPQ2d 1780 (CAFC 1992), the Court held:

“Mere fact that prior art may be modified to reflect features of claimed invention does not make modification, and hence claimed invention, obvious unless desirability of such modification is suggested by prior

art...It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious." [at 1783-1784] [Emphasis added]

The Court referred to its own prior decision in In re Gordon, 733 F.2d 900, 221 USPQ 1125 (CAFC 1984) which held at page 1127:

"The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the **desirability** of the modification.

In addition, it has been held that the motivating suggestion must be **explicit**, as was decided in Winner International Royalty Corp. v. Wang, 11 F. Supp. 2d 18, 48 USPQ2d 1139 (USDC DC 1998), where the Court held:

"...simplicity of device alone is not determinative, since invention cannot be found obvious unless there was some **explicit** teaching or suggestion in art to motivate one of ordinary skill to combine elements so as to create same invention." [at 1140] [Emphasis added]

"...there must have been some **explicit** teaching or suggestion in the art to motivate one of even ordinary skill to combine such elements so as to create the same invention." [at 1144] [Emphasis added]

In the present case the combination of references relied upon by the Examiner not only fails to provide a teaching that would enable a person of ordinary skill in the art of

fabricating metal security doors to practice the present invention as claimed, but also lacks any teaching that would prompt one to combine these references.

The Examiner's Analysis in Rejecting Claims 1, 7, and 13 Based
Upon the Acknowledged Prior Art (AAPA) in View of
Medley and O'Brien is also Faulty in that Steps or Elements Stated
To be "Equivalent" Quite Simply are Not "Equivalent"

As previously noted, the technique of spot welding involves positioning together metal members to be joined in face-to-face contact and passing an electric current through the members across the interface of contact while pressing the members together. To achieve a weld, face-to-face contact must exist between the metal members and they must be capable of being pressed by forces applied through the electrodes in order for a spot weld to be created. In contrast, arc welding requires no pressure between the members and no passage of electrical current through the members. The weld is achieved not by melting the members together, as in spot welding, but rather by melting a flux into the joint formed between the members. Arc welding allows members to be joined at virtually any angle relative to each other with a minimum of surface contact therebetween, but requires a high degree of skill and is quite time consuming. Thus, the conclusory statement that resistance/spot welding is "equivalent" to arc welding is simply not true.

The Examiner further states that the structural members 4, 13, 17, and 19 of O'Brien are "equivalent" to the stile or rail members recited in Claims 1, 7, and 13. Again, this is simply not true. All of the members 4, 18, 17, and 19 of O'Brien are stated to be "T-shaped". "T-shaped" refrigerator rack front members are simply not equivalent

to hollow stile and rail members of a security door required by the claims at issue. A T-shaped member such as those disclosed in the O'Brien reference is far less rigid and structurally sound as contrasted with a hollow metal tubular member of corresponding size. Structural rigidity is absolutely essential in a security door. The T-shaped members of the O'Brien reference do not require anywhere near the structural rigidity of stile and rail members of a security door since O'Brien's T-shaped members are merely front frame members of a shelf or rack for refrigerators or ovens.

The Examiner further states that it would have been obvious to one of ordinary skill in the art to have included a plurality of openings and flanges on the stile members as taught in O'Brien. However, O'Brien does not teach creating a plurality of openings. To the contrary, O'Brien teaches creation of a single, wide, elongated opening or slot in the embodiments of Figs. 6 and 7, and no opening whatsoever in any of the other embodiments. The statement that O'Brien teaches the creation of openings in a hollow structure is simply not true.

Acknowledged Prior Art in View of Medley, O'Brien, and
Further in View of Stern

The Stern patent, U.S. Patent No. 5,018,263, discloses a system for roll-forming the frame of a metal screen door from a single, elongated metal strip and by forming miter cuts 25 in the metal strip 10 (Fig. 1), rolling the sides of the metal strip 10, as illustrated in Fig. 2, and crimping a fold 14 over the edge of a fold 16, as illustrated in Fig. 5. The Examiner combines the Stern reference with the acknowledged prior art (AAPA), Medley,

and O'Brien references for the purpose of rejecting claims 4, 5, 11, 14, and 15.

Claims 4, 5, 11, 14, and 15 differ from Claims 1, 7, and 13 in that they require spot welding the corner tabs 40 formed by the miter cuts between the stile and rail members to a hollow stile or rail member adjacent thereto, as illustrated in Figs. 5, 6, and 7 of the application drawings. In contrast, Stern teaches the use of an epoxy 23A and epoxy activator 35 as a method of securing the flaps 23 and 20 to the adjacent frame members (Stern, col. 4, lines 18-46).

Far from teaching the spot welding of corner tabs, Stern specifically teaches a different method of securing the corner tabs to adjacent stile and rail members. It should be noted, in this connection, that the slots 11 and adjacent mounting holes shown in Fig. 1 of the Stern patent are for mounting a wheel assembly in the finished door frame (Stern, col. 3, lines 62-63). The slots 11 are therefore located too remote from the flaps 23 and 20 to provide access to the interior of the hollow stile and rail members for insertion of a spot welding electrode 64, shown in Figs. 6 and 7 of the present application. Only Applicant teaches how his corner securing tabs 40 can be secured by spot welding to the adjacent stiles and rails by the provision of electrode access openings 44 (Specification, page 15, lines 2-9). The Stern reference adds nothing to the acknowledged prior art (AAPA), Medley, or O'Brien references that would lead one of ordinary skill in the art to spot weld the corners of the frame of a security door, as required in Claims 4, 5, 11, 14, and 15.

The Rejection Under 35 U.S.C. § 103 Based Upon Acknowledged Prior Art (ΑΛΡΑ), Medley, O'Brien, and Janotik et al

The Examiner rejects Claims 6, 12, 16, and 17 under 35 U.S.C. § 103 based on the same references combined in the rejection of Claims 1, 7, and 13, in further combination with Janotik et al. Claims 6, 12, 16, and 17 all require the further step of cutting spot welding electrode access openings 44 in the sheet metal strip 32 to create spot welding tip access apertures, and inserting internal spot welding tips 64 into the spot welding tip access apertures 34 so as to contact the corner securing tabs 40 within the adjacent hollow members. The external spot welding tips 68 and 70 are then brought in to contact with the adjacent hollow members and electric current is passed between the internal and external spot welding tips 64 and 68 and 70 respectively, to spot weld the hollow members together at each of the corners.

As acknowledged in Applicant's original Appeal Brief, the Janotik et al reference does disclose, with reference to Fig.7 of the Janotik et al patent, an elongated aperture 186 which provides access for spot welding guns. However, and as previously noted in Applicant's original Appeal Brief, Janotik relates to frame structures for automotive vehicles (Janotik, col. 1, lines 12-14). If one were to combine Janotik et al reference with Stern, O'Brien, Medley, and the acknowledged prior art, as the Examiner has done, one would have to completely ignore and act in opposition to the teaching of Stern that requires the corner tabs of hollow stile and rail members of a metal door frame to be secured together by epoxy, and substitute for that teaching the system of Janotik et al, which relates

to an entirely different type of structure, namely automotive vehicles.

As held in In Re Randal and Redford, 165 USPQ 586 (CCPA 1970):

"Prior patents are references only for what they clearly disclose or suggest and that it is not proper use of patent as a reference to modify its structure to one which prior art references do not suggest,..."

Furthermore, as held in In Re Rothermel & Waddell, 125 USPQ 329 (CCPA 1960):

"Claims were rejected by what appears to be a piecemeal reconstruction of prior art patents in light of applicants' disclosure; it is easy to attribute to prior art the knowledge which was first made available by applicants and then to assume that it would have been obvious to one having ordinary skill in the art to make these suggested reconstructions, but this is not the type of rejection which statute authorizes."

SUMMARY

In formulating the new bases for rejection in the additional grounds for rejection set forth in the Official Action of May 23, 2001, the Examiner has not followed the analytical approach set forth by the U.S. Supreme Court in Graham v. Deere, *supra*. Rather, utilizing Applicant's claims as a basis, the Examiner has picked isolated disclosures from unrelated references, stated without any basis in fact that these disclosures are "equivalent" to the various claim elements, and cobbled together through numerous references a theoretical method of manufacturing a security door as required by the claims

on appeal. Neither the analytic approach employed nor the assumption of "equivalency" assumed provide any reasonable basis for rejecting Applicant's claims.

For all of the foregoing reasons and for the reasons set forth in Applicant's original Appeal Brief, Applicant respectfully requests reversal of the Examiner's decision rejecting Claims 1 through 17.

APPENDIX

In view of the entry by the Examiner of the Amendment filed December 1, 2000, there are changes in the wording of the claims on appeal. Accordingly, Applicant encloses herewith as an APPENDIX the claims on appeal in their current version, which reflects entry of the Amendment of December 1, 2000.

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APPENDIX

CLAIMS

1. In a method of fabricating a metal security door having a frame formed with a pair of hollow, upright stile members, upper and lower hollow transverse rail members extending between said stile members, and security bars extending between at least some of said stile and rail members, the improvement comprising spot welding said security bars to said at least some of said stile and rail members.

2. A method according to Claim 1 including a plurality of transverse security bars and a plurality of upright security bars, and further comprising forming said stile members and said rail members with flat, inwardly directed attachment flanges, positioning said transverse security bars so that they pass across said attachment flanges of said stile members, and positioning said upright security bars so that they pass across said attachment flanges of said rail members wherein said upright and transverse security bars reside in contact with and are spot welded to said attachment flanges across which they pass.

3. A method according to Claim 2 further comprising forming and positioning said attachment flanges in mutually coplanar relationship with each other to reside in a common plane and said step of spot welding is performed to attach said transverse security bars to said attachment flanges of said stile members on one side of said common plane and said step of spot welding is performed to attach said upright security bars to said attachment flanges of said rail members on the opposite side of said common plane.

4. A method according to Claim 2 further comprising first punching security bar receiving openings in at least one flat sheet metal strip and cutting said at least one flat sheet metal strip to form corner securing tabs thereon, roll forming said at least one flat sheet metal strip to form said hollow members at least some of which have pairs of said corner securing tabs projecting therefrom, positioning said hollow members so that said frame has a rectangular configuration forming four corners in which said transverse rail members meet said upright stile members with a pair of said corner securing tabs at each of said corners projecting into an adjacent hollow member, and spot welding said pairs of corner securing tabs to a hollow member adjacent thereto at each of said corners.

5. A method according to Claim 4 further comprising forming all of said hollow members from a single flat, sheet metal strip.

6. A method according to Claim 5 further comprising initially cutting spot welding tip access apertures in said flat, sheet metal strip, thereby creating at least one spot welding tip access aperture in said hollow members at each of said corners, and spot welding said pairs of corner securing tabs to said adjacent hollow members by inserting internal spot welding tips into said spot welding tip access apertures so as to contact said corner securing tabs within said adjacent hollow members, bringing external spot welding tips into external contact with said adjacent hollow members and passing electric currents between said internal and said external spot welding tips to spot weld said hollow members together at each of said corners.

7. A method of fabricating a metal security door comprising:

forming four hollow metal door perimeter segment members so as to define a plurality of security bar receiving openings in each of said perimeter segment members,

5 positioning a plurality of metal security bars to project through said security bar receiving openings and into said perimeter segment members so that said ends of said metal security bars terminate within said perimeter segment members and positioning said perimeter segment members together to form a rectangle, and

spot welding said ends of said metal security bars to said perimeter segment members within which they terminate.

8. A method according to Claim 7 further comprising roll forming said segment members so as to create a security bar attachment flange on each of said hollow perimeter segment members, whereby when said perimeter segment members are positioned together to form said rectangle said attachment flanges all project inwardly within said rectangle and lie in a common plane, and whereby said security bar receiving openings in each of said perimeter segment members reside proximate to said security bar attachment flange thereof on one side of said common plane while said security bar receiving openings in each adjacent perimeter segment member lie on the opposite side of said common plane.

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9. A method according to Claim 8 further comprising forming said hollow segment members from at least one elongated sheet of metal having opposing longitudinal edges, rolling said edges together and turning one edge over the other to form said security

bar attachment flanges.

10. A method according to Claim 9 further comprising forming all of said hollow segment members from a single, elongated sheet of metal.

11. A method according to Claim 7 further comprising forming at least some of said perimeter segment members with corner tabs projecting from their ends and spot welding said corner tabs to other of said perimeter segment members located adjacent thereto.

12. A method according to Claim 11 further comprising cutting electrode access openings in at least some of said perimeter segment members so that there is an electrode access opening at each corner of said rectangle, inserting internal spot welding electrodes into said electrode access openings, pressing external spot welding electrodes against said perimeter segment members to hold said corner tabs in contact with said other of said perimeter segment members located adjacent thereto, and passing electric current between said internal and said external electrodes to spot weld said corner tabs to said other of said perimeter segment members located adjacent thereto at each of said corners of said rectangle.

5 13. A method of fabricating a security door comprising:
forming a metal door frame to define a pair of hollow upright stile frame members and upper and lower hollow transverse rail frame members so that each of said frame members has an inner face with an attachment flange projecting therefrom and forming security bar receiving apertures in all of said frame members so that said security

bar receiving apertures are located in said inner faces of said frame members,

assembling a plurality of metal security bars with said hollow frame members so that the ends of said security bars project through said security bar receiving apertures and into said hollow frame members and so that said security bars pass over and reside in contact with said attachment flanges, and

10 spot welding said security bars to said attachment flanges so as to permanently secure said security bars to said metal door frame.

14. A method according to Claim 13 further comprising roll forming said metal door frame from a single elongated strip of sheet metal and cutting miter cuts into said strip to form mitered corners between adjacent frame members.

15. A method according to Claim 13 further comprising the steps of:

cutting an elongated continuous flat sheet metal strip to form mutually parallel, longitudinal edges thereon;

cutting mitered corners and pairs of opposing corner tabs in said longitudinal edges of said strip;

rolling said flat sheet metal strip to form a structure having a hollow cross section;

crimping said longitudinal edges of said strip together between said mitered corners to form said stile frame members and said transverse rail frame members;

longitudinally bending said rolled sheet metal strip at right angles between said frame members to bring said stile frame members into perpendicular

alignment relative to said rail frame members and so that said pairs of corner tabs project alongside surfaces of said frame members adjacent thereto at said mitered corners; and

spot welding said pairs of corner tabs to said frame members adjacent thereto to thereby secure said stile frame members in perpendicular alignment relative to said upper and lower transverse rail frame members.

16. A method according to Claim 15 further comprising cutting spot welding electrode access openings into said sheet metal strip, inserting internal spot welding electrodes into said electrode access openings prior to spot welding said pairs of corner tabs, and withdrawing said internal electrodes from said electrode access openings after spot welding said pairs of corner tabs.

17. A method according to Claim 16 further comprising sequentially spot welding each of said corner tabs in each of said pairs.